

White Paper Report

Report ID: 106152

Application Number: HD5156112

Project Director: Liza Potts (lpotts@msu.edu)

Institution: Michigan State University

Reporting Period: 4/1/2012-3/31/2013

Report Due: 6/30/2013

Date Submitted: 6/24/2013

White Paper Report

Report ID:

Application Number: HD-51561-12

Project Directors: Liza Potts (lpotts@msu.edu) & Kathie Gossett (kgossett@iastate.edu)

Institutions: Michigan State University & Iowa State University

Reporting Period: 4/1/2012 - 3/31/2013

Report Due: 6/30/2013

Date Submitted: 6/24/2013

FINAL REPORT TO THE NEH
ON THE DIGITAL HUMANITIES START-UP LEVEL 1 GRANT:
BUILDING AN OPEN-SOURCE ARCHIVE FOR BORN DIGITAL DISSERTATIONS



Authors: Kathie Gossett (Project Co-Director), Liza Potts (Project Co-Director)
Contact: kgossett@iastate.edu

Abstract

An NEH Level One Digital Humanities Start-Up Grant (\$25,000) supported a workshop for the purposes of beginning development work on the Digital Dissertations Depository (D³), an open-source repository for born-digital dissertations. The grant period was from April 1, 2012 thru April 30, 2013. Thirteen scholars and academic professionals (two workshop leaders and eleven workshop participants) gathered at Michigan State University for the workshop during the summer of 2012. The goal of the workshop was to identify the issues, opportunities, and requirements for developing an open-source system into which born-digital dissertations (e.g., interactive webtexts, software, games, etc.) can be deposited and maintained, and through which they can be accessed and cross-referenced.

The two and a half day workshop utilized core user experience (UX) methods to gather data about existing systems as well as identifying key users and stakeholders for the project and to begin identifying system requirements for the D³. Throughout the workshop participants cycled through group discussion, tool critiques, and breakout sessions to articulate key issues, discuss limitations and possibilities for solutions, and created a first-cut needs assessment and conceptual design for a digital repository for born-digital dissertations.

The deliverable for the grant was this whitepaper, which presents the results of the workshop, contextualizes the data gathered through the UX methods, and identifies the outcomes and next steps for the development of the D³.

Table of Contents

ABSTRACT	3
TABLE OF CONTENTS	4
THE PROJECT	5
COMPARABLE PROJECTS	6
PROJECT BACKGROUND	6
PROJECT LEADERS	7
WORKSHOP PARTICIPANTS	8
WORKSHOP REPORT	12
<i>DAY ONE SUMMARY</i>	<i>12</i>
<i>DAY TWO SUMMARY</i>	<i>13</i>
<i>DAY THREE SUMMARY</i>	<i>14</i>
PROJECT OUTCOMES	15
<i>OUTCOME 1: SYSTEM FEATURES AND BEST PRACTICES</i>	<i>15</i>
<i>OUTCOME 2: POTENTIAL SYSTEM CHALLENGES</i>	<i>15</i>
<i>OUTCOME 3: PROJECT STAKEHOLDERS</i>	<i>15</i>
<i>OUTCOME 4: PROJECT PARTNERS</i>	<i>15</i>
GENERAL CONCLUSIONS AND NEXT STEPS	16
REFERENCES	17
APPENDIX A	18
<i>LANDSCAPE ANALYSIS</i>	<i>18</i>
<i>LANDSCAPE ANALYSIS ADDITIONAL INFORMATION</i>	<i>22</i>
APPENDIX B	24
<i>PRELIMINARY REQUIREMENTS: FEATURES AND CHALLENGES</i>	<i>24</i>
APPENDIX C	26
<i>ANT DIAGRAMS</i>	<i>26</i>
APPENDIX D	31
<i>EMPATHY MAPPING</i>	<i>31</i>
APPENDIX E	38
<i>PERSONAS</i>	<i>38</i>

The Project

The Digital Humanities are increasingly leading the research, discussion, and dissemination of scholarship highlighting how computers and computer-enabled technologies transform traditional media and contribute to the production of new modes of expression. Institutions of higher education have responded by creating digital humanities centers and doctoral-level programs in digital media and instructional technologies. Researchers in these fields are not simply concerned with studying and describing the phenomena; they seek to perfect the various techniques used to produce digital media, and subsequently use them to interrogate the usual modes of academic inquiry. Yet, despite a growing acceptance of new media as a form of academic expression, the dissertation, even within digital humanities fields, remains primarily print-based. This is not because doctoral students or committees are unwilling to consider born-digital projects— projects that are conceived and authored as works of new media— rather, the reticence stems from the fact that there is no mechanism to adequately archive and publish such projects, a requirement at the majority of Ph.D. granting institutions.

At present, the ProQuest/UMI Corporation enjoys a near monopoly in dissertation publishing in the United States through legal arrangements negotiated with doctoral-granting institutions. Although ProQuest allows doctoral candidates to submit and publish their dissertations digitally, it only allows them to do so via the proprietary PDF format developed and maintained by the Adobe Corporation. Although recent changes in the PDF format allow for the embedding of certain types of media (e.g., URLs, images, and video) ProQuest's digital option allows only for a print-based model of publishing focused on text. Since many works of new media conceive of text as only one of a number of modes that are integrated into complex visual, audio and interactive forms of digital performance, these requirements can impose considerable impediments and even misrepresentations, undermining the overall message of scholarly work. Since publication through ProQuest is mandated by most doctoral institutions as a condition for successful graduation, digital humanities candidates find themselves having to produce two versions of their dissertations: One representing their scholarship and another satisfying the need to deposit the dissertation into an archive.

Much like ProQuest, the Electronic Thesis and Dissertation (ETD) system privileges print-based digital formats over multimedia or interactive formats. Although it is possible to deposit a majority of digital formats in an ETD system, files size and number restrictions require most born-digital projects to be condensed into an archived file type (e.g., .zip or .dmg), requiring future readers to download and expand the project before “reading” it. In addition, the ETD system is a turn-key system; that is each university purchases, installs and maintains a unique instance of the system for their campus— unless the university decides to participate in one of catalogs maintained by the NDLTD, there is no central repository or search engine for the ETD system. The participants in this workshop explored the possibilities for building on the NDLTD framework to develop a national open-source archive as well as brainstormed ways to maintain

the archived projects so that they remain accessible beyond current versions of software and coding languages—something neither ProQuest nor the ETD system currently do.

Comparable Projects

There are no current comparable projects.

Project Background

The workshop was the result of the intersection of several discussions: 1) a study into the status of digital dissertations in English conducted by one of the primary investigators for this project; 2) the work by both investigators to supervise graduate students in digital humanities fields whose dissertation projects should be either fully or partially born-digital; and 3) discussions with colleagues across the Humanities (and in the Sciences) about the forms and affordances of born-digital dissertations in the 21st century academy.

Phase 1: Workshop Preparation (April – June 2012) included: (a) refining the list of participants, sending event notices and invitations, and workshop logistics; (b) creating a “wiki-space”/website for preparatory materials and discussions; and (c) gathering readings, tool examples and other materials for the website, designed to facilitate ongoing collaboration, and further tool development.

Phase 2: Workshop Delivery (August 2012) a 2.5-day workshop was held in the Writing in Digital Environments lab at Michigan State University and supported by campus technology and event staff. The workshop was run using user experience tools and methods. The participants cycled through group discussion, tool critiques, and breakout sessions to articulate key issues, discuss limitations and possibilities for solutions, and created a first-cut needs assessment and conceptual design for a digital repository for born-digital dissertations.

Phase 3: Workshop Analysis (July 2012 – March 2013) involved: (a) summarizing and analyzing workshop discussion into a white paper/report and tool concept design document; (b) sharing workshop findings at professional conferences; and (c) writing and submitting a journal article.

Project Leaders

The two collaborating institutions and their departments are:

- Michigan State University's Department of Writing, Rhetoric, and American Cultures
- Iowa State University's Department of English

The two project leaders are:



Liza Potts is an Assistant Professor of Digital Humanities, Department of Writing, Rhetoric, and American Cultures; the Director of User Experience Projects for Matrix at Michigan State University; and the co-principal investigator on this grant.

Liza Potts researches technologically mediated communication, experience architecture, and participatory culture. She is the author of *Social Media in Disaster Response* and over 30 publications on digital culture and user experience. Liza brings over 19 years of academic and industry experience to this project. She is the newly elected Chair of the Association for Computing Machinery's Special Interest Group on the Design of Communication (ACM: SIGDOC). As the site manager for the workshop, she led the planning and facilitation of the workshop, co-led the design and analysis of the workshop, and supervised a graduate student who coordinated travel and workshop planning with university entities.

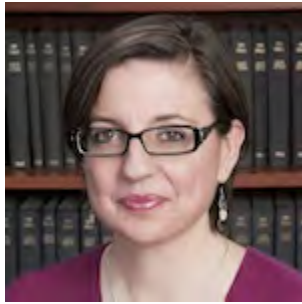


Kathie Gossett, Assistant Professor of Digital Humanities, Department of English, Iowa State University and is a co-principal investigator on this grant.

Kathie Gossett's research interests include digital humanities, open source design, new media theory & practice, user experience design and medieval rhetoric. She has published in journals such as *Kairos: Rhetoric, Technology, & Pedagogy* and *Computers & Composition* as well as several book chapters on born-digital and multimedia writing. Kathie brings over 15 years of project management experience to this project. She planned workshop content, co-led the design and analysis of the workshop, and supervised a graduate student who drafted project documentation.

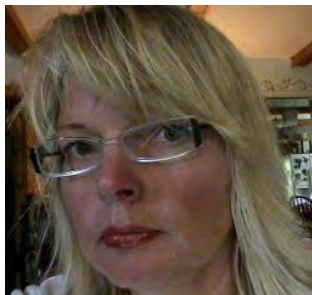
Workshop Participants

Including the above-mentioned project leaders, the following invited participants attended the workshop held at Michigan State University in East Lansing, Michigan. In addition to these participants, several more attended remotely by participating in our invited videoconference, public Twitter stream, and various online documents. The term “participants” refers to all three of these groups (leaders, invited participants, and remote participants)



Kathleen Fitzpatrick, Director of Scholarly Communication at the Modern Language Association and Visiting Research Professor of English at NYU

Kathleen Fitzpatrick is the author of *Planned Obsolescence: Publishing, Technology, and the Future of the Academy* (NYU Press, 2011) and of *The Anxiety of Obsolescence: The American Novel in the Age of Television* (Vanderbilt University Press, 2006). She is co-founder of the digital scholarly network MediaCommons (<http://mediacommons.futureofthebook.org>).



Martine Courant-Rife, Professor of Writing, Lansing Community College

Martine Courant Rife holds a law degree from the University of Denver and is admitted to practice law in Colorado and Michigan, with an active license in Michigan. She is a professor of writing in the Communication Department at Lansing Community College in Lansing, Michigan where she has been teaching online, face-to-face, and hybrid freshman composition, argumentation, technical and business writing, and advanced writing for over ten years. Rife has also taught at Michigan State University. Her research is at the intersection of intellectual property law and rhetorical invention. Rife is the 2007 recipient of the Frank R. Smith Outstanding Journal Article Award from the Society for Technical Communication.



Carrie Lamanna, Assistant Professor of Composition Studies, Department of English, Colorado State University

Carrie Lamanna's academic interests are autoethnography, graduate education, new media, web design, and feminist research methods. Dr. Lamanna is director of the university Writing Center, project director for the English department redesign of the undergraduate advanced composition curriculum, and a reviewer for the new free, online, Creative Commons licensed composition textbook series *Writing Spaces*.



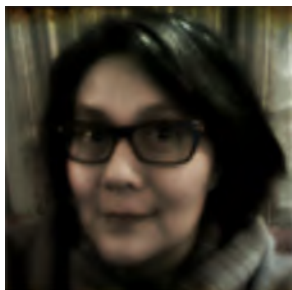
Quinn Warnick, Assistant Professor of Digital Rhetoric, Department of English, Virginia Tech

Quinn Warnick studies the rhetoric of online communities and teaches courses in web development, digital media, and professional writing. Prior to his appointment at Virginia Tech, Dr. Warnick taught at St. Edward's University, where he piloted an electronic portfolio system for humanities students to archive and showcase their "born digital" work. Over the past decade, he has developed websites to support pedagogical and research initiatives at three universities and for two national organizations.



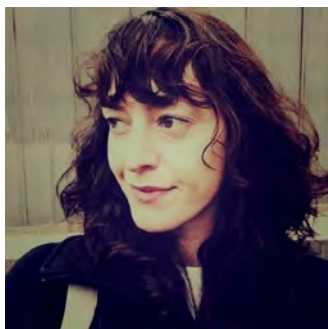
Aaron Collie, Digital Curation Librarian, Michigan State University

Aaron Collie has over 8 years of experience working in libraries and information centers. He is currently the Digital Curation Librarian at the Michigan State University Libraries where he is responsible for leading repository development, research data management training, and analog A/V media preservation. Prior to working at MSU, Aaron was a Graduate Fellow and research assistant with the Center for Informatics Research in Science and Scholarship (CIRSS) at the University of Illinois. He received his M.S. in Library and Information Science with a specialization in the Data Curation Education Program from the University of Illinois in 2010.



Ranti Junus, Systems Librarian, Electronic Resources, Michigan State University

She is responsible for supporting the design and access organization of library materials as well as support in technical and access issues related to electronic services and resources including purchased databases, online catalog, and other digital resources. She also serves as the subject librarian for Library and Information Science and as the library liaison for the Museum Studies program at MSU. Ms. Junus received her Masters of Library and Information Science from the University of Illinois at Urbana-Champaign in 2001 and her Computer Science bachelor degree from Case Western Reserve University in 1995.



Shana Kimball, Business Development Manager for Digital Initiatives at the New York Public Library

At the New York Public Library, Shana Kimball is primarily focused on promoting and supporting the development of Knowledge Unlatched, a global library consortium enabling open access books. Prior to joining NYPL, she was Head of Publishing Services, Outreach, and Strategic Development for Michigan Publishing, the primary academic publishing division of the University of Michigan. Shana regularly participates in conversations on topics such as open access, the transformation of scholarly communication, libraries, digital humanities, and alternative academic careers.



Steve Potts, Assistant Director at MATRIX, Michigan State University

With over 20 years of professional software engineering experience, Stephen Potts is an accomplished software architect, manager, and web services expert. He has lead development teams and spearheaded initiatives at Microsoft, NTT, and Choicepoint.



Alex Galarza, PhD Candidate, Department of History, Michigan State University

His research examines soccer clubs and urban life in Buenos Aires during the 20th century. He is currently in Argentina conducting dissertation research made possible by a Fulbright IIE Award and a FIFA João Havelange Research Scholarship. He also the co-founder of the Football Scholars Forum, a soccer think-tank that collaborates online to discuss and develop fútbol scholarship. Finally, he co-edits gradhacker.org, a blog and podcast for graduate students, by graduate students.



Beth Keller, Project Research Assistant, PhD Candidate, Department of Writing, Rhetoric, and American Cultures, Michigan State University

Her research interests intersect in feminist rhetorics and pedagogies, technical communication and professional writing, and mentoring practices. She is currently working on a project that examines writing, mentoring, and professionalism in academic and non-academic spaces.



Tom Lindsley, Project Research Assistant, PhD Candidate, Rhetoric and Professional Communication, Department of English, Iowa State University

His current professional interests include web development, technical communication pedagogy, and medical rhetoric. Outside of his work in academia, Tom works as a front-end engineer for the Brooklyn-based web development firm, HappyFunCorp, and also serves as the Director of Marketing for the academic research participant recruitment service, FindParticipants.

Workshop Report

The workshop was conducted on August 6-8, 2012 at Matrix Center for Humane Arts, Letters, and Social Sciences Online at Michigan State University in East Lansing, Michigan.

Day One Summary

The workshop opened with a welcome to the MSU campus from Dr. David Gift, the Vice-Provost for Libraries and IT Services and the Chief Information Officer at MSU. He spoke briefly about the importance of archiving and preserving digital scholarship in general and born-digital dissertations specifically. Participants were then welcomed to the workshop and given an overview of the history of the project by Dr. Kathie Gossett and Dr. Liza Potts, which included a discussion about the first born-digital dissertations in English Studies by Christine Boese (1998) at Rensselaer Polytechnic Institute and Virginia Kuhn (Monaghan, 2006) at University of Wisconsin, Milwaukee.

The remainder of day one was spent performing a landscape analysis (see Appendix A). A landscape analysis commonly used in product development as a way of understanding the various tools, products, and services on the market. Through a process of analyzing the competition and identifying best practices, designers gain a better understanding of how a system should function (Withrow, 2006).

The workshop participants began this process by brainstorming a list of systems currently in use at universities to archive digital copies of dissertations. The list developed by the participants was augmented by suggestions from people following the workshop Twitter stream using the hashtag #digidiss.

The systems identified for further analysis were:

- Collex
- Fedora Commons
- RU Core
- Digital Commons
- DSpace
- ETD
- Content DM
- GIT Hub
- VIREO, Texas Digital Library

The next step in the landscape analysis was to examine the systems identified above. Some of the characteristics the workshop participants looked for in each system included the ability to embargo/restrict access to the digital work for a specific period of time, the ability to perform a faceted search of the digital works, the depth of the metadata capabilities, and whether or not the system was open access.

Based on assessments made during the landscape analysis, the workshop participants compiled preliminary requirements for the digital dissertation depository (D³). These requirements included features that the group believed the D³ system should have (e.g., a federated search mechanism, responsive web and server design, and metrics for tracking use of the system), as well as some of the challenges these features might pose (e.g., aligning institutional priorities with discipline-specific priorities, maintaining--not just archiving--digital artifacts, and whether the system should follow a federated or single-source model). A more detailed list of preliminary requirements can be found in Appendix B.

Day one of the workshop concluded with the participants brainstorming a list of potential stakeholders and users of the D³. The list included:

- department chairs
- graduate deans
- dissertation committees
- graduate students (current as well as future)
- research assistants
- librarians
- university CIOs
- provosts
- IRB committees
- publishers
- DPLA
- scholarly societies
- research grant agencies
- research participants/subjects
- other databases (e.g., LexisNexis, ERIC, etc.)

Refer to the appendices for further information.

Day Two Summary

During day two of the workshop, the participants created rough versions of actor-network theory (ANT) diagrams, conducted a preliminary needs analysis, and outlined personas based on workshop participants' brainstorming, discovery, and discussion.

First, the participants walked through the process of creating ANT diagrams (a design methodology developed by Liza Potts and based on actor-network theory). These diagrams are helpful for teams to document all of the actors (people, places, organizations, and technologies) that will be involved in the proposed system (Potts, 2008). By visualizing these ecosystems, design teams can better understand the spaces in which a new technology will be deployed. Because the context in which digital dissertations are developed, defended, and deposited are

extremely complicated and often unclear, these diagrams were the project leaders' first step towards trying to better understand the problem space from the perspective of the workshop participants (i.e., one set of project stakeholders). These proved to be an excellent brainstorming activity for the participants, as they each worked to come up with a central figure that would work within the proposed system (e.g., the dissertator) and come up with other actors who might support or perhaps hinder their work (e.g., the dissertation chair/committee). The diagrams created by the workshop participants can be found in Appendix C.

Next, the workshop participants conducted a needs analysis, using the ANT diagrams as a way of understanding the needs of the multitude of people and organizations participating in these spaces. Completing a needs analysis means that participants needed to research, discuss, and document the strengths, issues, concerns, and weaknesses of all of the relevant actors in the system (Hackos and Reddish, 1998). Workshop participants took turns discussing the various needs, policy considerations, and administrative constraints under which each proposed user would need to operate. One of the tools used to help workshop participants better understand user needs was empathy mapping, which assists designers both in gaining a deeper understanding of users as well as in identifying gaps in their understanding of users (Gray, Brown, & Macanufo, 2010). A sample empathy map and the results of the exercise can be found in Appendix D.

Finally, the participants used the ANT diagrams and the needs analysis to help decide which people and organizations any solution would need to focus on. Personas and empathy maps are used in user experience research to help design and development teams get a clear picture of who would use a specific system and how they would use it (Personas, n.d.). They tell the story of the central participants that any new technology or process would need to support. Project leaders documented these personas and have included them in Appendix E and put them on the D³ website. Although the project leaders recognize the need to go back and refine these drafts, day two allowed the team to gain valuable insights from workshop participants and co-create this material with them.

Day Three Summary

The focus of day three of the workshop was to discuss the next steps for the project. The workshop participants brainstormed lists of potential future participants and advisory board members, grants and funding agencies, and publication venues. These next steps are documented later in this whitepaper.

Project Outcomes

Outcome 1: System Features and Best Practices

The workshop team developed a list of best practices based on findings from the landscape analysis performed on the first day of the workshop. These practices included a federated search mechanism, responsive web and server design, and metrics for tracking use of the system. A full list of best practices can be found in Appendix B.

Outcome 2: Potential System Challenges

In addition to identifying features and best practices, the landscape analysis also revealed several potential challenges for the D³. These challenges included aligning institutional priorities with discipline-specific priorities, maintaining--not just archiving--digital artifacts, and whether the system should follow a federated or centralized model. A full list of potential challenges can be found in Appendix B.

Outcome 3: Project Stakeholders

Workshop participants identified and analyzed project stakeholders. The list of stakeholders included those internal to the university (e.g., provosts, department chairs, graduate students, etc.) and external to the university (e.g., governmental funding agencies, external systems, industry recruiters, etc.). For a complete list of project stakeholders see Appendix D.

Outcome 4: Project Partners

Through the landscape and needs analysis, the workshop participants analyzed the market for digital dissertation systems and discovered some existing areas of opportunity for the D³, and thus, several potential partnerships with existing systems. In addition, the workshop group spent the majority of day three brainstorming a list of potential partners and strategic alliances for the D³ project in the future.

General Conclusions and Next Steps

This workshop provided an excellent opportunity to bring together senior scholars, junior scholars, graduate students, and academic specialists to discuss the needs, issues, and opportunities for archiving digital dissertations. While the project leaders were preparing for the workshop, they were very optimistic about the depth of scope for the workshop. During the workshop itself, the leaders quickly realized that the subject matter experts were best situated to discuss stakeholder needs, best practices, and university procedures more so than to design the system. The leaders were able to discuss the process of developing and implementing the system, rather than focusing on the user interface, database structure, or information architecture of such a system. This kind of guided conversation lead the project leaders to understand that there was a need not only for an archiving system, but a federated network of networks that could catalog these dissertations.

The team leaders were able to take the work products from this workshop and further expand the needs analysis and personas, while also diving into use cases. All of these deliverables are critical to designing the user experience and software architecture of the system. Further work, including building wireframes, a prototype, database structure, and data management plan, must be planned for to ensure the success of the project's next steps. To this end, the project leaders are currently in discussions with Matrix to scope out this work and develop prototypes for various solutions. After this work is completed, the project leaders plan on moving forward with a proposal for an NEH Digital Humanities Implementation Grant as well as seeking funding from other external sources.

References

- Boese, C. (1998). *The ballad of the internet nutball: Chaining rhetorical visions from the margins of the margins to the mainstream in the xenaverse*. (Doctoral dissertation). Retrieved from <http://www.nutball.com/dissertation/>
- Personas. (n.d.). *Cooper*. Retrieved from <http://www.cooper.com/journal/personas>
- Hackos, J.T., Redish, J.C. (1998). *User and Task Analysis for Interface Design*. New York, NY: John Wiley & Sons.
- Gray, D., Brown, S., & Macanufo, J. (2010). *Gamestorming: A playbook for innovators, rulebreakers, and changemakers*. Sebastopol, CA: O'Reilly Media.
- Monaghan, P. (2006, April 26). Digital dissertation dustup. *The Chronicle of Higher Education*. Retrieved from <http://chronicle.com/article/Digital-Dissertation-Dust-Up/20201/>
- Potts, L. "Diagramming with Actor Network Theory: A Method for Modeling Holistic Experience," in *Proceedings of the International Professional Communication Conference*, 2008, 1–6.
- Withrow, J. (2006, February 27). Competitive Analysis: Understanding the Market Context. *Boxes and Arrows*. Retrieved from <http://boxesandarrows.com/competitive-analysis-understanding-the-market-context/>

Appendix A

Landscape Analysis

	Collex	Fedora-Commons	RU Core	Digital Commons	DSpace	ETD-db (used by a lot of NDLT partners)	Content DM
Access Embargo	we think no	content owners can remove from repository	yes	yes	"Permissions: DSpace allows you to control permissions as granular as itemlevel, or you can set global permissions based on communities and collections."	yes	Sort of. This is designed for library collections, so access can be restricted to certain IP addresses, etc., so that only folks on a particular campus can view a collection.
Review/Approval Process	yes	not by default, could be built with custom front-end		yes		yes	no
Templates for Bio/Abstracts	Submission guidelines & application for peer review template (msword)	not by default, could be built with custom front-end	Yes.	no		no	Each library creates a homepage for its collections that are hosted by or indexed in Content DM. this page is created using a template/skin system. Each collection then uses that skin.
All Types of Files?	no, links back to hosted websties, RDF, XML	yes	could only find PDF examples for dissertations, but software supports more robust digital objects. RUcore currently accepts PDFs, Microsoft Word, Microsoft Excel, Microsoft PowerPoint, TIFF(for images and scanned text), MP2, AVI (video), and WAV files.	.doc, .rtf, .html, .txt, .pdf	"The DSpace application can recognize and manage a large number of file format and mime types. Some of the most common formats currently managed within the DSpace environment are PDF, Word, JPEG, MPEG, TIFF files. "	not really; PDF is required core file of dissertation or thesis (student can upload other file types as well but they exist out of context; no html options)	yes

	Collex	Fedora-Commons	RU Core	Digital Commons	DSpace	ETD-db (used by a lot of NDLTD partners)	Content DM
Metrics/Use	couldn't find anything	database queries		yes		possible, but dependent on individual institution to implement	no
Copyright/Flexible IP	submitter keeps rights	unsure	authors retain copyright	yes	yes	submitter keeps rights	the institution retains copyright, so essentially, yes.
Faceted Search/Metadata	interlinking, remixable metadata, permits faceted search & discovery, tagging, recommender system	RDF SPARQL Search,	fulltext search, not faceted	no	"Built-in search engine: DSpace comes packaged with Apache Lucene, an OS indexing engine, that allows for enabling full-text searching for end users. In addition, you can optionally enable a faceted search/browse interface via Apache Solr, an OS enterprise search platform" "Metadata: Qualified Dublin Core is the default metadata schema, but DSpace can accept custom metadata schemas similar to Qualified Dublin Core. DSpace can also translate metadata from other metadata schemas such as MARC/MODS"	weak; advanced Google search, browse by author/department, but that appears to be it	yes
Linked Data	built on semantic web	yes, RDF	no	no	yes i assume, see below	no	
Data Storage	not really, stores links	Relational Database + filesystem	?	content is stored in the digital commons repo; content is backed up via LOCKSS	yes "architecture: DSpace offers organizations a full application, not just a framework with components (i.e. database, data model, workflows, browse/search, storage manager, front end web interface) built into the architecture. Components may be swapped or added, but there is no need to build new ones"	yes; files can be uploaded along with the main PDF of the dissertation	yes
Submission/Versioning	tracks users activity	backup system	couldn't access the submission process, behind access control	no versioning		no versioning	each institution can upload its own content and edit a collection at any time, but versions are not preserved.

	Collex	Fedora-Commons	RU Core	Digital Commons	DSpace	ETD-db (used by a lot of NDLT partners)	Content DM
Open Source	yes	yes	built on top of Fedora, front-end is not open source	no	yes	no	no
Open Access	yes?	depends on the policy	Mostly open access; can be embargoed.	OA is possible	OA is possible	OA is possible	yes, unless an institution restricts a particular collection
Milestones/Progress	via email, not in system	no?		yes		no	
Define Boundaries/Options	only links to websites			?	"Permissions: DSpace allows you to control permissions as granular as itemlevel, or you can set global permissions based on communities and collections."	?	
Taxonomy/Ontology	used Dublin Core for object metadata, also folksonomy	"Content Model Architecture (define "types" of objects by their content)"	MODS Record	content categories: theses & dissertations, journals, conference proceedings		keywords	collections are tagged and individual items in a collection can be tagged as well. End users can also add tags and they can share collections and/or items in a collection (e.g., a photograph) via email, Facebook, or Twitter.
Terms of Service			Yes, including IP and copyright conditions	yes		yes	
DMCA Takedown Requests	not in the system. Policy?	no		?		not described	
Process for Student		need a front-end	couldn't access	Tailored guidelines and submission processes for diss authors, faculty authors, etc. dependent on content type		submission guidelines and processes described on website (but could vary with each installation)	

	Collex	Fedora- Commons	RU Core	Digital Commons	DSpace	ETD-db (used by a lot of ND LTD partners)	Content DM
Process for Student		need a front-end	couldn't access	Tailored guidelines and submission processes for diss authors, faculty authors, etc. dependent on content type		submission guidelines and processes described on website (but could vary with each installation)	
Process for Advisor	vetting through editorial board structure	need a front-end	couldn't access	Tailored guidelines and submission processes for diss authors, faculty authors, etc. dependent on content type		approval form developed by individual institution	
Federated or Central	loosely federated via links to	federated	central	hosted/central	hosted/central	federated; each	both Content DM

Landscape Analysis Additional Information

System	Findings
Collex	<ul style="list-style-type: none"> • Nines built on collex • more for federating collections rather than building collections • good with metadata • relies on the collections to keep/maintain their permanent URL or URI
Content DM	<ul style="list-style-type: none"> • institutions pay for service • wysiwyg archive for libraries; interface customizable; content stored on contentdm servers at institutions • walled system • billed as “making digital archive accessible”; links to world cat • assumes most people start search at an institution • federated system • set up for collections (e.g., audio, video, images); doesn’t seem very usable for digital dissertation • contentdm does not do well in search engines outside of institutions • user maintains copyright • all file types that are viewable in browser are accepted • submission is pc only platform • share function via FB and Twitter
d-space	<ul style="list-style-type: none"> • free, openspace • developed at MIT originally; has good user community • highly customizable--good for institutions, but means each instance is different • subject headings seem to be heuristically generated
ETD (NDLTD)	<ul style="list-style-type: none"> • Running on ETD-db, a homegrown software program developed at Virginia Tech and made available to all members of NDLTD. • recommended file types; very print centric. Every diss needs to have at least 1 pdf file. • HTML not supported natively--can link out or deposit using zip or tar • search fairly good through Google • multimedia is supplemental • all non-print files must receive an exception for director of grad school • some older file types were not viewable
Digital Commons (Berkeley Press)	<ul style="list-style-type: none"> • access can be open or closed--based on university policies • interface good; very usable • renders PDF through the interface rather than using plugin

System	Findings
	<ul style="list-style-type: none"> • what happens when press or institution folds? not clear • pricing models not available, but know that they are based on institution size and content types • good search results via Google
GitHub	<ul style="list-style-type: none"> • freemuim model: free is publicly available; paid are private (free private accounts for education) • interface not friendly • need to know very specifically what you're searching for • interesting views of contents (e.g., language bar graph) • user must maintain and update files; no system wide maintenance
Fedora Commons	<ul style="list-style-type: none"> • you can deposit any file type • feature heavyweight
ProQuest	<ul style="list-style-type: none"> • each institution has individual contract and can request specific databases • TOS states that institutions cannot discuss terms of contracts with other institutions • library interfaces look different at different institutions • plug-in issue in Firefox • search was very wide and not easily limitable • hard to find open access dissertations • media types must be able to be embedded in PDF • URLs not live and led to 404s
VIREA (Texas Digital Library)	<ul style="list-style-type: none"> • based on Manakin/Dspace • each institution runs own instance, but TDL federates all the repositories (not quite true - Illinois runs its own and MIT is looking at running their own) • currently undergoing a re-architecture to move away from DSpace • a submission system that allows uploads, tracking of grad college approval process (audit trail of emails back and forth, submissions, etc.) • SWORD enabled so deposits can be pushed to any other SWORD enabled repository (DSpace, eprints, fedora) • format agnostic but can set required formats • at Illinois we have seen deposit of all formats including software, audio, video, zip files, scripts, datasets • not an access system • very good tracking for administrators of submission process

Appendix B

Preliminary Requirements: Features and Challenges

The workshop participants developed the following list of desired features for the D³.

- Open source/open access (for community support and participation; create maintenance programs, etc.)
- Browsing capabilities: by author, field, and other metadata (a folksonomy? users to tag their own content)
- Federated search mechanism (hosted in distributed fashions)
 - Lock-style error checking for preservation
- Responsive web design - re: different machines (computers, phones, etc.) output different displays
 - Responsive server design
- Instruction (students/instructors; faculty, librarians)
- Folksonomy or other metadata assistance
- Access embargo
- Multiple search-based option (metadata, file type search)
- Review process and approval process
- Usable and elegant, friendly site to use
- Wherever possible, dissertations should be viewable in the web browser
- Graduate, faculty and community partners
- Interdisciplinarity
- Terms of Use
- Contract and legal agreements
- FAQs, tutorials, best practices
- Collaborative editor UI
- Design/development resources,
- Committee review portal
- In-line or on-screen review
 - Annotation feature for reviewers and committees

The workshop participants also developed the following list of potential challenges for the D³. (Interestingly several of the features identified above were also identified as posing potential challenges to the D³.)

- Open source and open access (embargoes, etc.) - making texts more available to more people
- Ways that projects might not be hosted within the server space in which the data is being stored (a way to add metadata without it being hosted directly on the server) can be problematic for preservation
- Open standard compliance formatting
- Copyright licensing (open standard for copyright)
- Access embargo
- Funding
- Orphan works (users whose works are in the repository and the users can't be tracked down)

- How to align institutional priorities with discipline priorities
- Not just a repository but an archive
 - Need to preserve and make usable all file types in the future
- Interdisciplinarity
- Where will the repository be housed? (One large server, or housed on individual campuses?)
- Maintenance and sustainability
- Security (once a project was approved, the grad student could upload the files via FTP. How would the system ensure web standards, secure files, editors, and monitors for the repository?)
- Metrics for tracking use
 - tracking use at the repository level (folks signing in, etc.)
 - vault metrics (how many people are reading your dissertation, and how they are being read/shared/used)
- How do you deal with networked or collaborative dissertations? (This is an option in other disciplines/fields.)
 - institutional constraints with collaboration
- Is an institution the most reasonable place to host the dissertation? What about a group of scholars that get together and build/host it?
 - Issues of cost and the university who grants the degree

Appendix C

ANT Diagrams

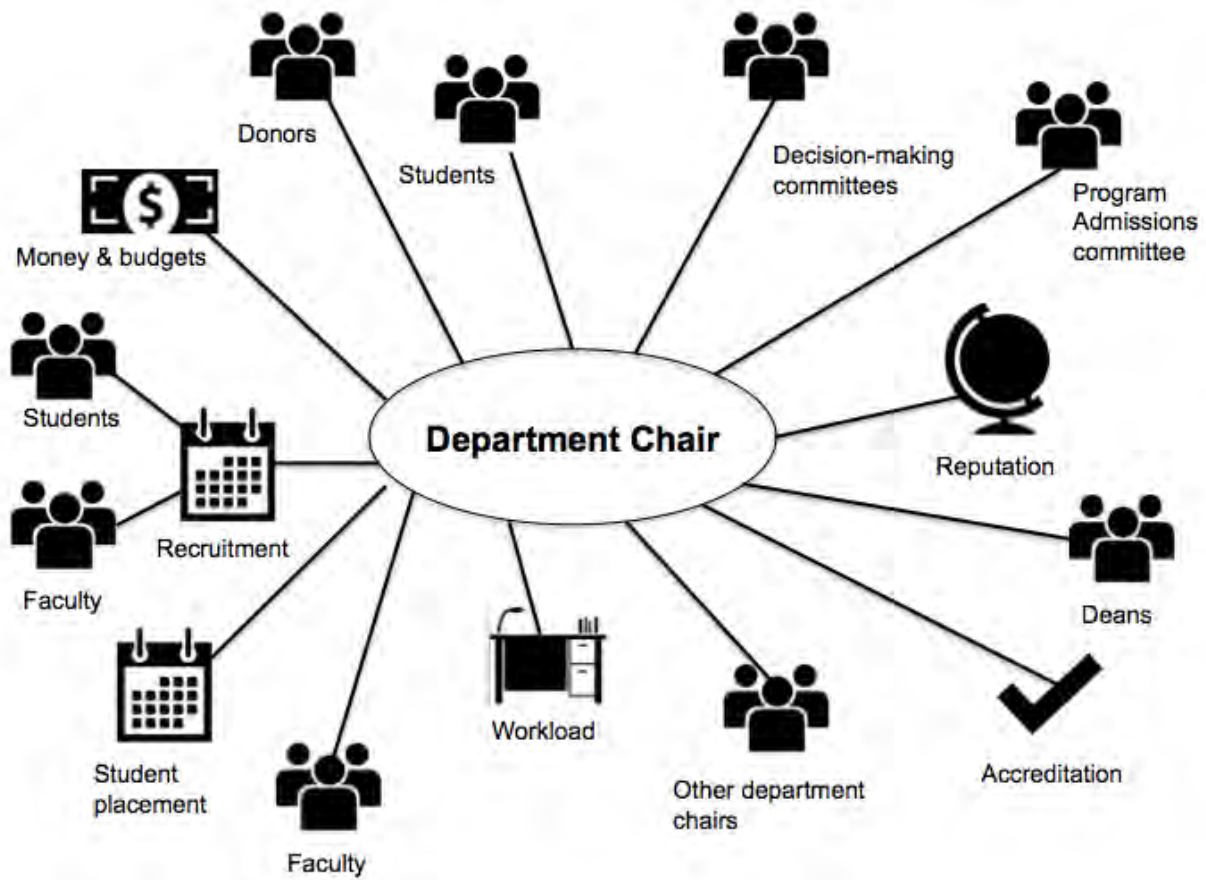


Figure 1: Department Chair ANT Diagram

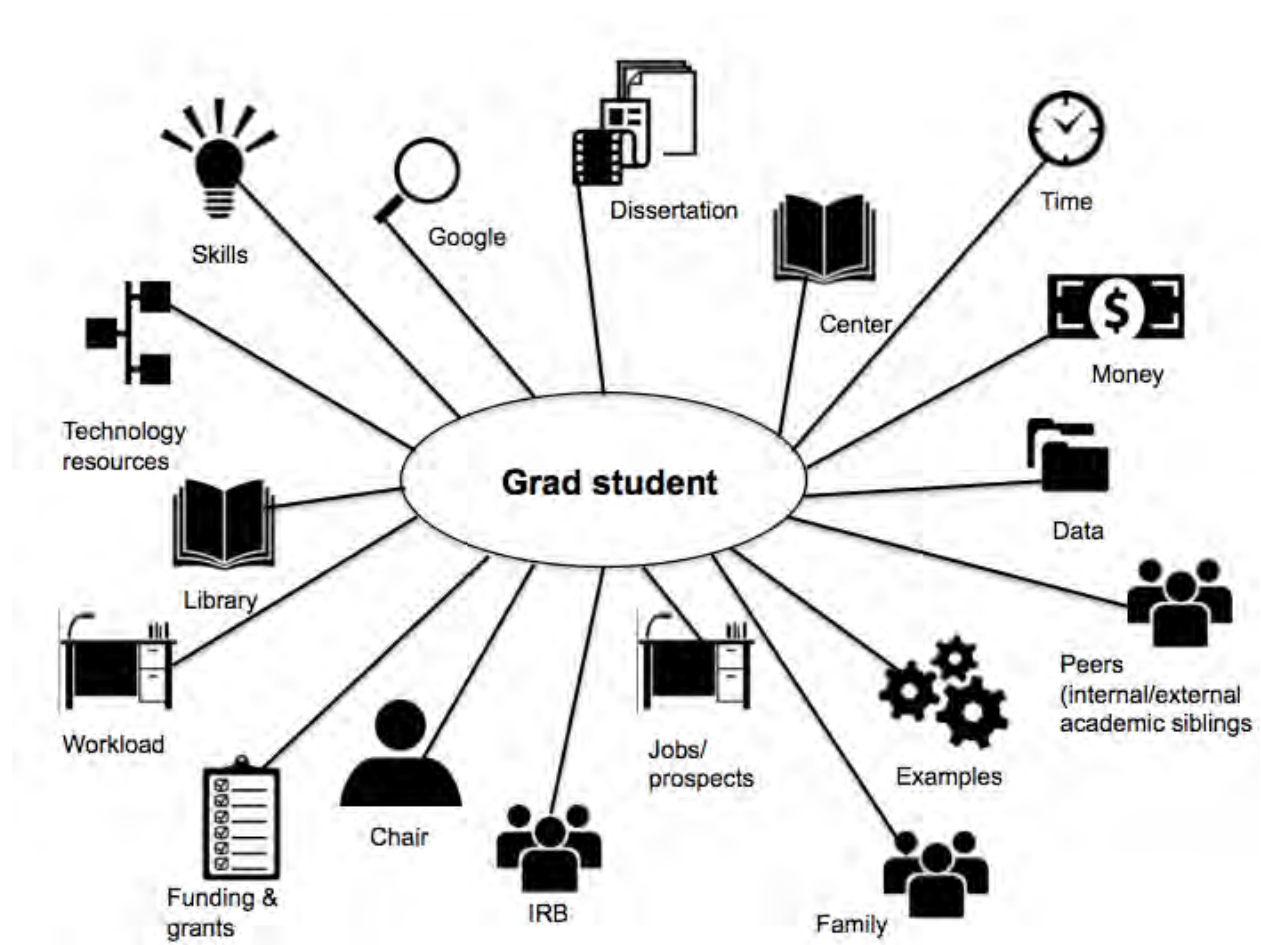


Figure 2: Graduate Student ANT Diagram

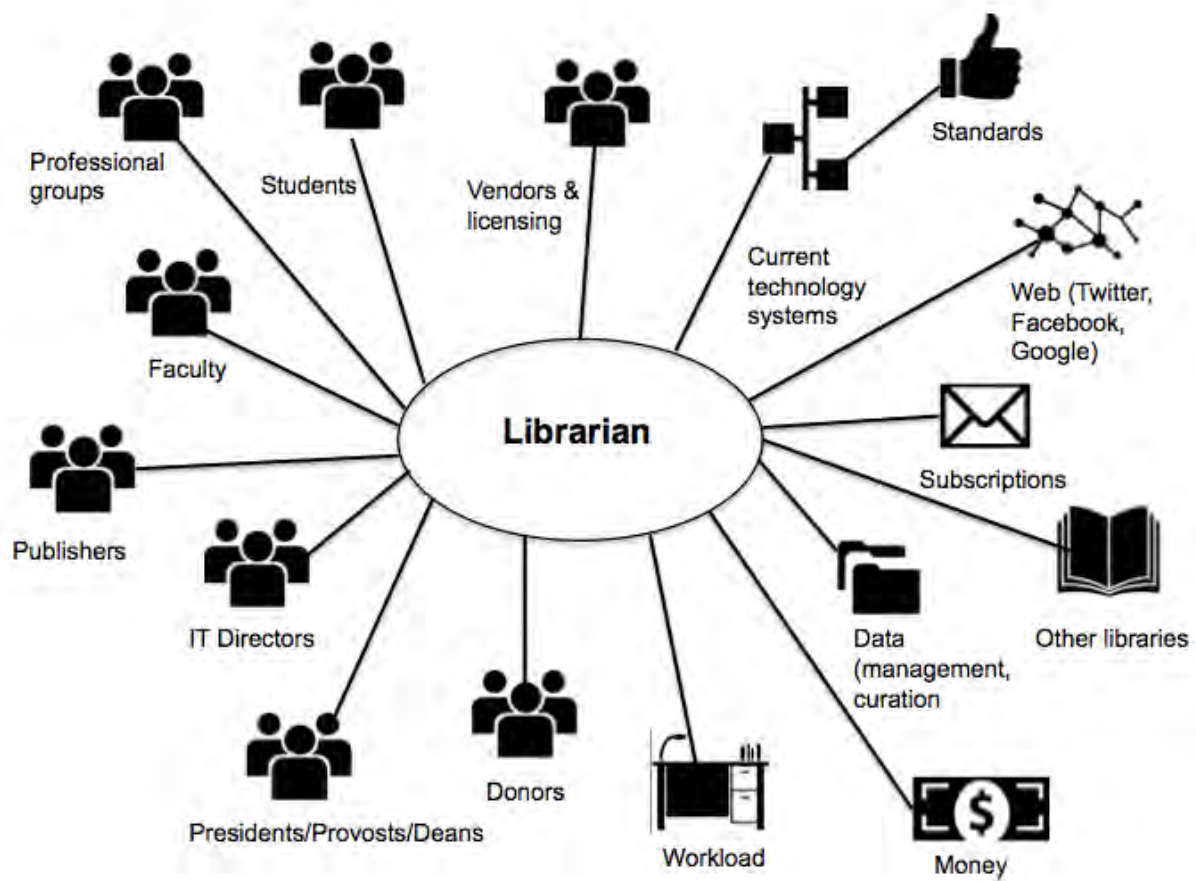


Figure 3: Librarian ANT Diagram

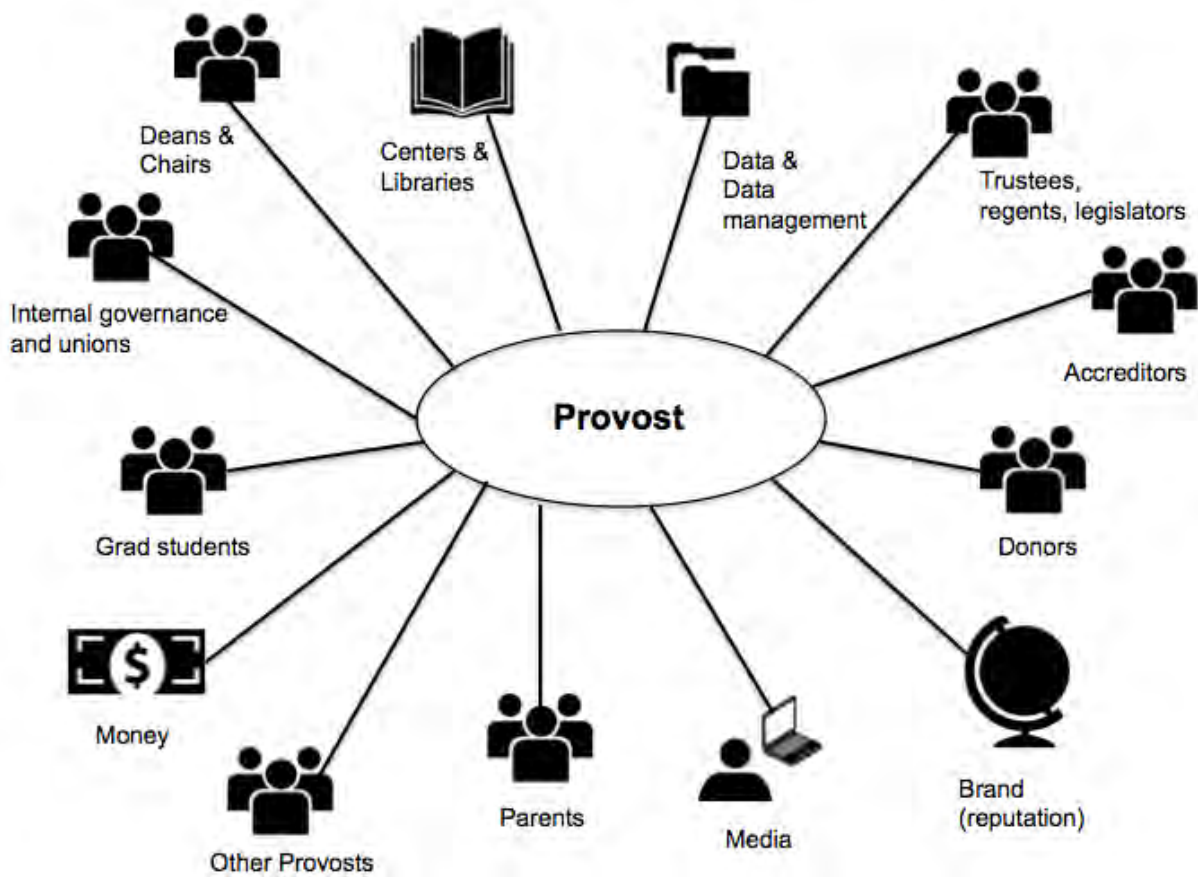


Figure 4: Provost ANT Diagram

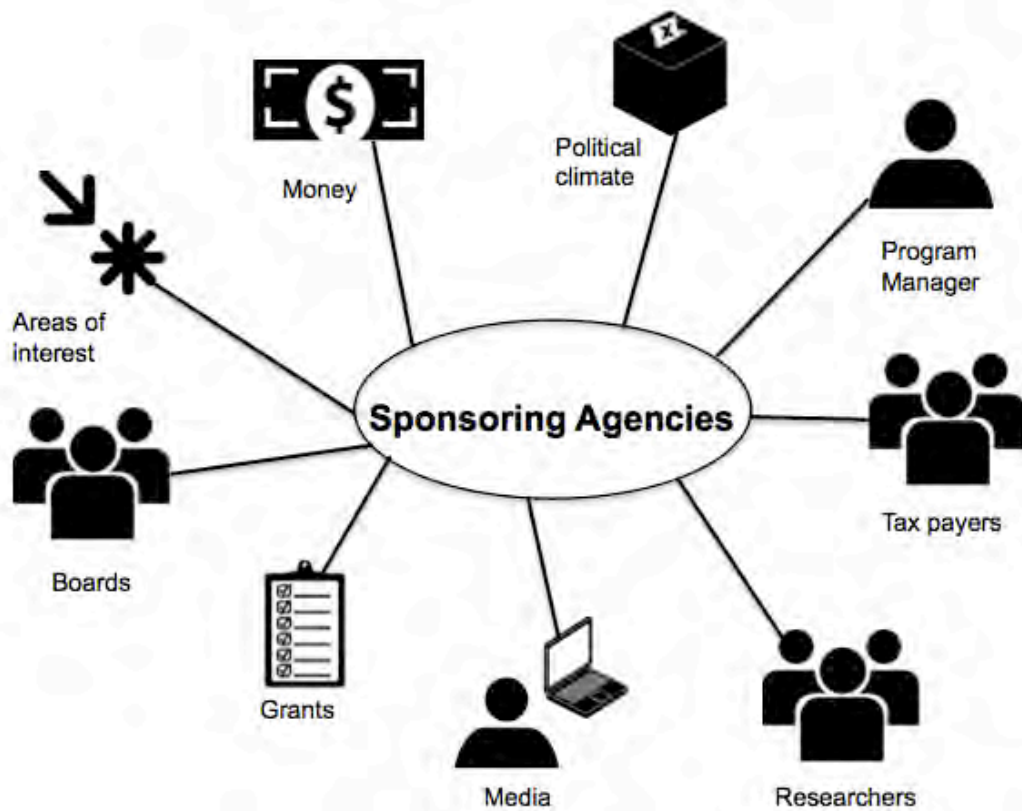


Figure 5: Sponsoring Agencies ANT Diagram

Appendix D

Empathy Mapping

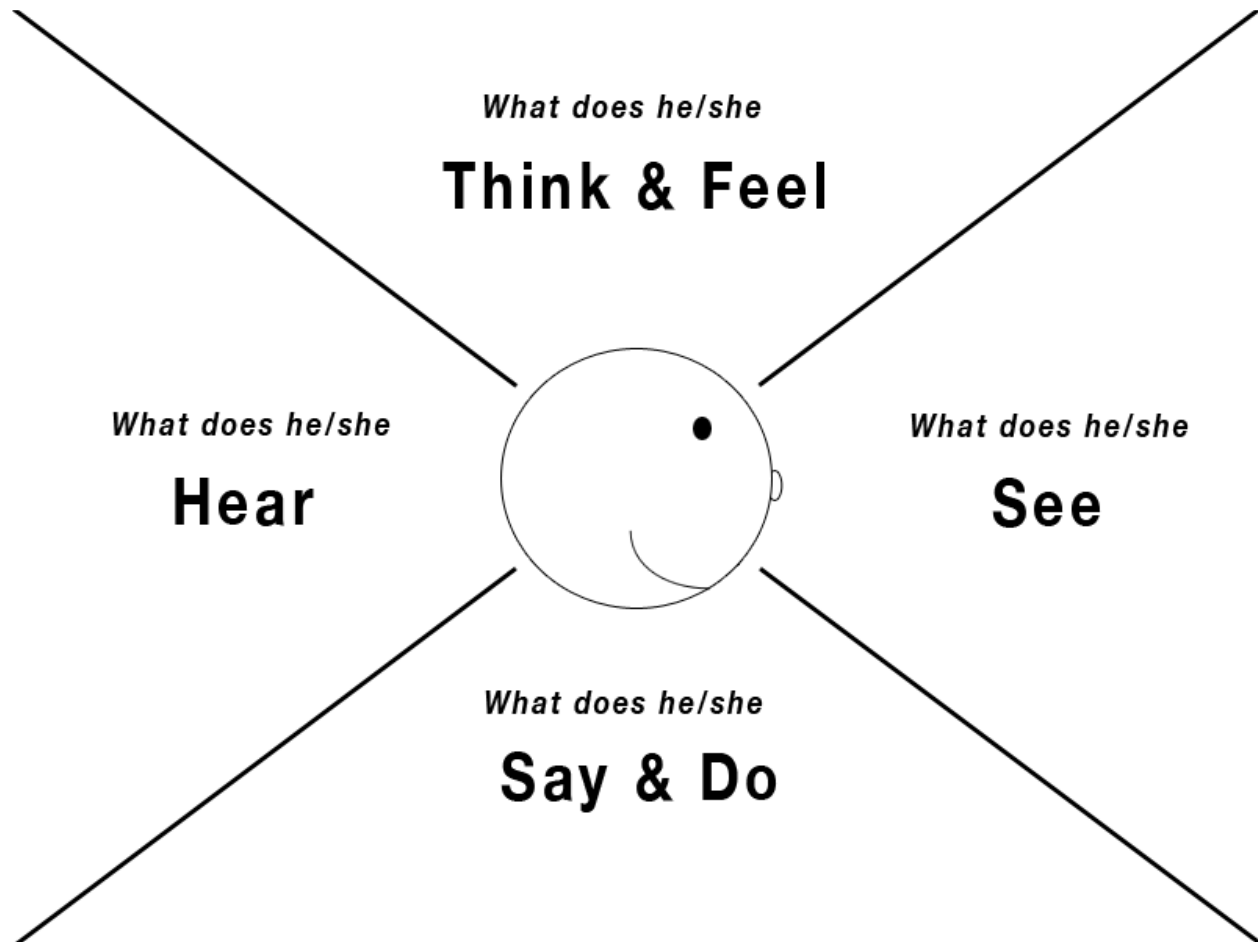


Figure 6: Sample Empathy Map

Department Chair

Hearing	Students want to create non-traditional dissertations; faculty aren't sure how to support students working on digital projects; graduate college is insisting on formatting requirements and/or ProQuest participation; university IT is saying no to almost everything.
Thinking & Feeling	Students who put their work online might not be able to publish it in traditional venues (university presses, academic journals, etc.).
Seeing	Graduates with strong digital skills are the ones getting jobs; other schools are passing us by when it comes to digital work.

Saying & Doing	Let's form a committee to study whether our department should allow digital dissertations; take it slowly; we have never done it that way before. Enforcing (perhaps unintentionally) traditional standards for dissertations (and subsequently hiring and tenure).
----------------	---

Dissertation Committees

Hearing	Awareness of digital dissertations but not sure how to properly evaluate it to meet university requirements for the degree, as well as for future hiring, promotion, and tenure outside of the student's institution.
Thinking & Feeling	We need clear statements and guidelines from the university about the process, workflows, and expectations governing digital dissertations. We also need to figure out how to align the expectations/guidelines from our institution with those of the discipline. Should we encourage born digital dissertations? There are so many unknowns with respect to the student's career trajectory.
Seeing	Graduates with strong digital skills are the ones getting jobs; other schools are passing us by when it comes to digital work.
Saying & Doing	Digital work should be postponed until after tenure, once the scholar's reputation has been established via more traditional forms of authoring & publication.

Current Graduate Students

Hearing	Will a digital dissertation help or hinder me on the job market? What will my committee think? Is this an important part of my dissertation's goals?
Thinking & Feeling	Conflicted, short on time.
Seeing	Mixed signals from committees, departments, potential future publishers, professional associations. A few of their peers are providing models.
Saying & Doing	Some grad students are voicing their opinions on blogs, sometimes taking cues from their committees and advisers. The research that their committees and advisers are comfortable with, sometimes with an eye toward their own strategies for submitting and evaluating a born-digital dissertation.

Future/Prospective Graduate Students

Hearing	You should go to X university because they participate in a digital repository. They can support your work.
Thinking & Feeling	How do I find out what other kinds of projects have come before me? If other folks are doing awesome digital work, where will I find that info? Excited, anxious, confused.

Seeing	Peers working or publishing digital dissertations or theses.
Saying & Doing	I need a space to host my dissertation, because I'm not sure how much of it will be digital, but some part of it will be. It makes sense in today's age to have a digital space for hosting my thesis or dissertation. I mean, I have to apply online and do most everything else online/digitally, or be capable of doing things in these spaces. The online/digital repository can motivate where I decide to go to school.

University Standards Gatekeeper

Hearing	The university needs to maintain uniform standards for our students, and that is your job.
Thinking & Feeling	Confused and perhaps a bit threatened by the variety of digital work; job security on the line?
Seeing	New kinds of material that she doesn't know how to measure.
Saying & Doing	ProQuest won't accept this; we don't know how to store this kind of work. Waiting for a change in the standards that she applies; until she gets that, she won't budge.

Government Funders

Hearing	Born-digital work is the future of scholarship! Congress will only fund cutting-edge stuff; we must maintain appropriations levels by contributing to progress; increasing desire for open access to scholarly work.
Thinking & Feeling	Anxious about the future of their ability to fund anything in the current political environment.
Seeing	Nonprofit funders beat them to the punch by supporting "cool" projects that get a lot of media attention.
Saying & Doing	Apply for these programs! Show us something we haven't seen before. Funding projects with open-access outcomes; funding projects that provide agencies with strong visibility.

Private Funders

Hearing	Born-digital work is the future of scholarship! Innovation in scholarly communication can help facilitate exciting new work.
Thinking & Feeling	Funding digital work can help us create an identity as a high-tech organization.
Seeing	The federal government is cutting funding for many programs; state budgets are frozen or declining; ergo, more applications from academic researchers.

Saying & Doing	We want to fund innovative new projects, but they must plan for sustainability; how will the project continue after the funding period? Funding digital work can help us create an identity as a high-tech organization.
----------------	--

Research Assistants

Hearing	Working on born-digital projects will look good on your CV.
Thinking & Feeling	How will I be acknowledged on the project? How is my work used in the digital project?
Seeing	Graduates with strong digital skills are the ones getting jobs;
Saying & Doing	Talking to other students and faculty. Working on projects.

Research Subjects

Hearing	Students want to include research on my community in their work.
Thinking & Feeling	How did the researcher use the information I provided? How am I portrayed in the research?
Seeing	I can show this to my community.
Saying & Doing	I participated in a study and look what the researchers discovered! I can use this research in my community.

Hiring Committees

Hearing	We need more faculty who can do digital work and oversee born-digital dissertations and other scholarly work.
Thinking & Feeling	How do we evaluate a born-digital writing sample? What makes a digital project scholarly? If I don't understand the medium how do I evaluate its appropriateness for our job?
Seeing	More and more writing samples are digital. Rather than print, job applicants are providing URLs, videos, etc., application materials.
Saying & Doing	We need to be able to verify digital credentials.

IRB

Hearing	Big data is the future of research. More and more research is being captured digitally—we need to figure out the ethics of this type of data.
Thinking & Feeling	How do we deal with issues of permissions and informed consent? How do we ensure the anonymity of participants?
Seeing	They see these new kinds of dissertations and realize they need to adjust their requirements accordingly. They look at born-digital dissertation projects at other universities to see how things were done.

Saying & Doing	Did the person ever finish the project? How can we move research into the digital era while still maintaining the privacy and protection of the human subjects in the study?
----------------	--

Graduate Deans

Hearing	Students want to create non-traditional dissertations; faculty aren't sure how to support students working on digital projects.
Thinking & Feeling	What are our peers doing and how many problems have they had in doing it? How much will this cost? Will it save us money, since we may not have to deal with these dissertations internally? How can we implement something like this across all of the disciplines? Is it possible? What kinds of technical and legal problems are involved and how will we deal with this? What will the faculty think? What will we do if a unit or committee says they will not deal with dissertations in these formats? Can there be exceptions? If so, how will we handle them? Are there things we cannot allow? Can such a program be implemented consistently across colleges and units? We would like to be in the forefront, but how can we do that without jeopardizing ourselves?
Seeing	Graduates with strong digital skills are the ones getting jobs; other schools are passing us by when it comes to digital work.
Saying & Doing	Let's form a committee to study whether our university should allow digital dissertations; take it slowly; we have never done it that way before.

Provost

Hearing	We need to foster innovation in the university. Born digital dissertations are cutting-edge "proto-publications" that require a solution for adequately preserving, hosting, and delivering these new forms. We need standards and best practices that define these types of dissertations as a genre so that students, their committees, and their department chairs can have guidelines to aid the creation and vetting of these new forms.
Thinking & Feeling	If we don't address these challenges, we'll fall behind as a leading research & teaching institution.
Seeing	Similar universities are establishing digital repositories for faculty work, but very few make their dissertations available digitally.
Saying & Doing	We can develop inter-institutional partnerships to address these challenges collectively (especially attractive for SLACs). How might a repository be attractive to provosts and faculty at SLACs who focus on undergraduate research - perhaps in hosting a regional repository of undergraduate research that highlights the cutting-edge research they are doing?

Campus IT Services

Hearing	Somebody I don't know wants me to build some complex system and make it easy to use, and I have to use tools I've never used rather than the ones I'm familiar with.
Thinking & Feeling	This documentation is horrible, I can't assign this to my student workers... the learning curve is going to be intense. This is going to require long-term maintenance and support, which means staff time, money, and headaches.
Seeing	We have to hook this into all of our legacy systems.
Saying & Doing	Building an infrastructure, setting up the database, programming administrative and backend system, designing user interface and public access interface, and managing the server.

External Systems (e.g., ProQuest, DPLA, HathiTrust, Scholarly Societies, etc.)

Hearing	Sounds like an institutional repository that might compete with our service or enhance our collections.
Thinking & Feeling	Scholarly Societies -- not necessarily early adopter...vetted services.
Seeing	Lots of start ups, not sure which have legs.
Saying & Doing	Others will need some kind of API to pull metadata from the collections. Building external services.

International Scholars and Researchers

Hearing	There is a great place where you can have access to all kinds of dissertations for free.
Thinking & Feeling	Where can I find it? How can I use it? Now that I have access to it, how do I find the ones that match with my needs?
Seeing	Graduates with strong digital skills are the ones getting jobs. More and more dissertations in the US are being done in digital formats.
Saying & Doing	Research, citations, looking for potential research partner(s).

Librarians

Hearing	From faculty: I want all of the dissertations from my department from 1981-1984. Isn't there a way you can print this out for me? From administration: Do more with less, we don't have enough people to maintain that. From IT: I can't support that software. That violates security/usability/etc.
Thinking & Feeling	Overwhelmed, underappreciated.

Seeing	A lot of frustrated users, especially stressed graduate students; the challenges different stakeholders have interacting with the repositories; an increased number of people contacting them, asking for assistance; across disciplines & formats and see the needs and requirements & norms
Saying & Doing	I need technical support; I need instructional materials for our users. I need to teach stakeholders about this system and socialize the repository. Providing support from creation, to depositing to redistribution to finding.

Industry Recruiters

Hearing	We should pay attention to academic research.
Thinking & Feeling	Wondering if they are missing out on more hires, more research, etc. and not knowing how to approach the situation.
Seeing	Not much (no idea where to look, when, or why).
Saying & Doing	Maybe there are ideas we could tap into; maybe there are people we could hire to help us find solutions. Hiring PhDs who approach them, provided their research is applicable.

Parents

Hearing	How their child has struggled through their program, wanting to create something digital, but not knowing how to move forward.
Thinking & Feeling	Outside of the system, wanting to share their student's successes, wondering how they can share their child's achievements with family/friends; wanting their student to have a pathway to employment/achievement/success. Worry, concern, pride.
Seeing	Their student sitting in front of a computer, working hard to complete their dissertation.
Saying & Doing	Supportive, concern/encouragement for them to graduate. Possibly helping their students financially, emotionally.

Alumni

Hearing	Our students are awesome. You should help them get jobs / grow their network.
Thinking & Feeling	Our program should be growing. How do we have our students do digital work?
Seeing	What they can from the department links and Google.
Saying & Doing	How can you help grow my network by doing really useful and innovative work? How can the reputation of our program grow? Working in the fields, either industry or academic.

Appendix E

Personas

	Professor Jayne Maize English Department Chair
Personal Info (e.g., age, field of study, personality type, etc.)	58 years old, Medieval literature scholar, full professor & endowed chair, high-achieving, strong-willed but friendly and helpful
Responsibilities	Manages personnel, manages budgets, teaches graduate-level research courses (1 a semester), responsible for hiring, participates in undergraduate and graduate committees, advises dissertating students.
Job Type (e.g., admin, professor, support staff)	Admin and professor
Motivations	Dedicated to undergraduate & graduate education – serious about keeping the field relevant, engaged, and growing. Interested in possible funding opportunities.
Technical Savvy	Savvy with Word and Email, welcomes ideas from graduate students, but no higher level technical skills such as HTML, programming, etc.
Goals and Needs	Trim department spending, hire new professors to fill retiring positions, stay connected to the digital humanities.
Interest in Project	Curious about possibilities, especially considering new hires in 18th C. literature and cognitive science, but unsure about how the department can support this kind of work.
Brief Bio Statement	Jayne Maize is the endowed chair of the English department, and a professor of Medieval literature. Research interests include the representation of women in Medieval literature, specifically The Wyves Tale of Bathe in Geoffrey Chaucer's Canterbury Tales.

	Professor Melody Ocean Dissertation Chair
Personal Info (e.g., age, field of study, personality type, etc.)	48 years old, English, Type A (high energy, micromanages advisees) – Enjoys gardening, cooking, walking her dog, and playing tennis. Keeps bees. Involved in local politics.
Responsibilities	Chairs six committees, on a dozen. Director of Digital Research in English. Co-directs undergraduate writing program. Six college committees.
Job Type (e.g., admin, professor, support staff)	Admin and professor
Motivations	Wants her students to be well-published, respected, and fairly high-profile in their fields. Measured on job placement. Pushes students to finish within five years. Wants to make English relevant to other disciplines.
Technical Savvy	Understands tech, uses it in her classrooms and research, but not an expert
Goals and Needs	Wants to increase job placement rate by 20%. Wants the graduate program to have more media attention (IHE, CHE, local media etc.). Wants to secure external grants for department projects (NEH, Mellon).
Interest in Project	Students can use project to raise their profile within the field. Wants to create a consensus within department faculty to embrace the project and mention it in job letters. The project could serve as a training module for faculty and students – the dept might also offer a research assistantship to maintain and upload the content to the repository.
Brief Bio Statement	Melody Ocean is a Professor of English at ABC University where she teaches technical and professional writing in the English Department. She also directs the Digital Research Center in English and Co-directs the undergraduate writing program. Her book is: <i>Why Shakespeare was a Technical Writer</i> .

	Christopher McLeod Foundation Director
Personal Info (e.g., age, field of study, personality type, etc.)	45 years old; historian; organized, enthusiastic, serious
Responsibilities	Oversees all grant programs for the digital humanities grants at a foundation (3 grant officers); reports to Chairman of foundation; prepares all materials for the foundation's approval; communicates with board in helping them understand digital issues; attends academic conferences; meets or talks with prospective applicants.
Job Type (e.g., admin, professor, support staff)	administrator
Motivations	Wants to see digital work become more central to the work of the foundation generally; wants office to continue to thrive, so needs to fund projects that keep the office visible; wants to remain competitive with private funders; wants to increase his office's share of the foundation budget.
Technical Savvy	Very high; serves as unofficial CIO for foundation; both understands the technology and knows how to use it.
Goals and Needs	Long-term goal is to change the landscape of humanities scholarship; increasing opportunities for born-digital dissertations will increase number of scholars trained in innovative forms, thus increasing number of applicants for grants and visibility of foundation work. Needs projects to be open, transparent, able to connect with existing systems and programs. Gets excited about project if it fills a gap in existing services without reinventing the wheel.

Interest in Project	Interested in open repository for a kind of scholarly work that is not elsewhere being archived. Interested in short-term support to get this project up and running, but not long-term ownership and maintenance of archive. Wants to see evidence that the project understands the landscape of digital archiving and that it has a real chance of success (evidenced by use of good data management standards and principles, involvement/endorsement of stakeholders in other digital archiving projects). Committed to supporting projects that will remain non-commercial.
Brief Bio Statement	Christopher McLeod is the founding digital director for Foundation X. He holds a PhD in history from the University of X. He began his career at the foundation as a program officer in the education division, where he was able to support some innovative projects in digital pedagogy. His interest in and talents for digital work brought him to the attention of the chairman, who tasked him with setting up the digital humanities program.

	<p>Jamie Valez</p> <p>PhD Candidate in English</p>
Personal Info (e.g., age, field of study, personality type, etc.)	30 years old, 4 th year PhD student. ambitious, introverted, studious, fastidious & detail oriented.
Responsibilities	Teaches 2 sections of introductory composition to first year undergraduates. Writing a dissertation on representations of telecommunication technology in the Victorian novel. She is responsible for managing the expectations of her committee members, who are supportive of her ideas of doing a digital dissertation. Chairing an interdisciplinary digital culture reading group for PhD students & faculty that meets monthly. She maintains the blog for the group. She is preparing to give her first paper at MLA in Jan 2013.
Job Type (e.g., admin, professor, support staff)	Graduate student and teaching assistant
Motivations	Wants to complete the dissertation in a timely manner. She wants a tenure track faculty position at a liberal arts college. She feels the subject matter of the dissertation is better served by a multimedia based form of expression. She wants to do a digital dissertation to distinguish herself when applying for jobs, but she also has anxieties that faculty search committees will not care or understand a digital dissertation. One of the motivations for starting the digital culture reading group was to find other graduate students interested in digital dissertations.
Technical Savvy	Familiar with HTML and understands multi-media technology. She spends a lot of time on the internet reading blogs and tweeting. She understands the WordPress blogging platform and is savvy enough to install WP plugins, but does not feel like she fully understands how these technologies work. She feels like she often is simply copying and pasting HTML she finds on the web.
Goals and Needs	While she has some technical skills, she does not feel comfortably in control of the afforded modes of expression made possible by HTML and the web. She needs technical help with formats and standards for web publishing and digital preservation. She has never

	<p>done any programming and she would like to learn, but she is very frustrated by the current approaches to teaching programming. She would also need to understand how users will find and access her digital dissertation; she will need help with metadata, copyright options, and the relationship between the digital dissertation and future publishing options she may want to exploit with this project. She really wants to connect with other graduate students attempting to produce digital dissertations so she can learn from their example and also learn from them about what did or did not work.</p>
Interest in Project	<p>The development of a digital dissertation depository would help her meet her goal of developing a born-digital dissertation in a few ways. First, it would provide her with a sense of the constraints and guidelines for a non-standard dissertation. Second, having her dissertation deposited in such a depository would alleviate some anxieties for her dissertation committee and future faculty search committees: it would be available online for the long-term at a stable address, and would be available to access under conditions that she chooses (i.e., to the world, to her campus community, embargoed access for a period of time). Third, she would like a way to discover and access other digital dissertations to learn more about how other students have successfully executed them.</p>
Brief Bio Statement	<p>4th year Doctoral Candidate in the Department of English at the University of Kansas. Her dissertation is tentatively titled "Twitter and the Victorian Novel: Gossip and the Emergence of Mediated Telecommunications in Late 19th Century England." She graduated cum laude from the University of Ohio with a degree in English and a minor in journalism.</p>

	<p>Jack Maru</p> <p>Digital Librarian</p>
Personal Info (e.g., age, field of study, personality type, etc.)	40 years old, digital librarian at a tier 1 research institution. He is outgoing and technically savvy.
Responsibilities	As head of the Multimedia Lab, Jared is responsible for managing many types of digital projects. He oversees the digitization efforts of the Library, and provides leadership for the build out of digital infrastructure including policy development, hardware acquisition, software purchases, staff training and workflow management. He also has a secondary appointment as a subject librarian for History, especially the British/Irish History. Jared reports to the Assistant Director for Public Services. For his secondary appointment he reports to the Assistant Director for Library Collections.
Job Type (e.g., admin, professor, support staff)	Jared has a faculty status in his institution. He supervises one support staff (a programmer) and a librarian (assistant digital librarian). His works, however, are not restricted to the managerial/supervisory work. There are times when he has to roll his sleeve and get involved in the design and programming part of the job.
Motivations	Tenured and satisfied with his current job. Over 10 years of experience creating and managing digital multimedia projects and is excited that students are expressing an interest in digital dissertations.
Technical Savvy	He is experienced with web technologies like XHTML and CSS. Self-taught LUA and has used the language on a handful of projects throughout his career. He recently learned Python during his second Master's Degree, but hasn't yet used the new skill on the job.
Goals and Needs	His goal is to investigate how the Library can assist with building or supporting a digital dissertation depository. He is aware that a project of this scale would require a political approach including additional hard-line funding and coalition building with key players throughout the institution.

Interest in Project	He is genuinely interested finding a way to support a digital dissertation repository, but is unsure how it will fit into the Library's current mission.
Brief Bio Statement	Working in libraries for over 15 years; only recently has moved into the role of Digital Librarian after completing an additional Masters Degree in IT Management. Was hired as a multimedia librarian and moved into managing digital projects as the library began receiving grants to support digitization efforts.

	Dr. Beverly May Provost
Personal Info (e.g., age, field of study, personality type, etc.)	65 years old, energetic and engaged
Responsibilities	Responsible for all undergraduate and graduate education, Chief Academic Officer of the university
Job Type (e.g., admin, professor, support staff)	Admin
Motivations	Improve graduation numbers, increase ranking of university and visibility of programs
Technical Savvy	Lives and dies by her Blackberry
Goals and Needs	Wants to leave a legacy at this university
Interest in Project	Extremely interested, is clued in to the importance, really excited that this will help increase the university's profile, willing to invest in training and equipment
Brief Bio Statement	As an admin, priorities include re-envisioning undergraduate education, enhancing graduate and professional education, building a culture of assessment, and supporting the university's faculty and staff.